

What the invention claimed is:

1. A filter comprising:

an electrically insulative hollow cylindrical casing, said casing comprising two symmetric half shells, flexible hinge means connected between said half shells,

5 and a fastening device formed in said half shells and adapted to lock said half shells to each other in a closed status, said half shells each having two end walls and a locating device, said end walls each having a notch for the passing of an electric wire; and

two magnetic core members mounted inside said casing and abutted against each other and adapted to hold an electric wire in therebetween, said magnetic core members each having a longitudinally extended recessed portion located on an inside wall thereof and adapted to accommodate an electric wire and a locating device for receiving the locating devices of said half shells of said casing.

10 2. The filter as claimed in claim 1, wherein said half shells of said casing and said magnetic core members have a semicircular cross-section.

15 3. The filter as claimed in claim 1, wherein said fastening device of said casing is comprised of a plurality of female fastening elements formed in one half shell of said casing, and a plurality of male fastening elements formed in the other half shell of said casing and adapted to engage said female fastening elements.

20 4. The filter as claimed in claim 1, wherein the locating device of each half shell of said casing is comprised of at least one locating rib; the locating device of each of said magnetic core members is comprised of at least one locating groove adapted to receive the at least one locating rib of each of the half shells of said casing.

25 5. The filter as claimed in claim 1, wherein the locating device of each half shell of said casing is comprised of a longitudinal rib longitudinally formed in an inside wall thereof between the respective two end walls; the locating device of each of said magnetic core members is comprised of a longitudinal groove formed

in a peripheral wall thereof for receiving the longitudinal rib of one half shell of said casing.

6. The filter as claimed in claim 1, wherein the locating device of each half shell of said casing is comprised of two transverse ribs transversely formed in the  
5 respective end walls at an inner side; the locating device of each of said magnetic core members is comprised of two transverse grooves respectively formed in two distal ends thereof for receiving the transverse ribs of one half shell of said casing.

7. The filter as claimed in claim 1, wherein the locating device of each half shell of said casing is comprised of two angled locating ribs symmetrically and  
10 longitudinally arranged in parallel on an inside wall thereof; the locating device of each of said magnetic core members is comprised of a locating groove having a T-shaped cross-section and longitudinally located on an outside wall thereof for receiving the angled locating ribs of one half shell of said casing.